

Claims:

1. A display for reproducing an image intended for printing on a substrate using a set of inks, the image having a perceived color gamut when printed on said substrate, the 5 display comprising:

a light source generating a set of at least three primary colors; and

a controller combining the set of at least three primary colors to substantially reproduce said image,

wherein said at least three primary colors define a viewed color gamut which 10 substantially covers said perceived color gamut.

2. The display of claim 1 comprising a correction filter, the spectrum of the correction filter being based on the spectrum reflected from a type of said substrate.

15 3. The display of claim 1 comprising a correction filter, the spectrum of the correction filter being based on the spectrum of an intended light used to view the image when printed.

4. The display of claim 1 wherein the light source includes at least a plurality of 20 LEDs.

5. The display of claim 1, wherein the light source includes at least a color wheel.

6. The display of claim 1, wherein the light produces at least four colors.

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7. The display of claim 1, wherein the light source produces three primary colors, the transmission spectra of which define said viewed color gamut.

8. The display of claim 1 comprising a spatial light modulator.

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9. The display of claim 1 comprising a digital micro-mirror device.

10. A method for reproducing an image intended for printing on a substrate using a set of inks, the image having a perceived color gamut when printed on said substrate, the 10 method comprising:

accepting data corresponding to said image;

converting said data to data corresponding to a set of at least three primary colors;

selectively producing light of said at least three primary colors; and

15 combining the at least three primary colors to substantially reproduce said image, wherein said at least three primary colors define a viewed color gamut which substantially covers said perceived color gamut.

11. The method of claim 10 wherein converting said data comprises converting the 20 data using a conversion matrix.

12. The method of claim 10 comprising passing light through a correction filter, the spectrum of the correction filter being based on the spectrum reflected from a type of said substrate.

13. The method of claim 10 comprising passing light through a correction filter, the spectrum of the correction filter being based on the spectrum of an intended light source used to view said image when printed on said substrate.

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14. The method of claim 10 comprising passing light through a color wheel.

15. The method of claim 10, wherein said at least three primary colors include a red primary, a green primary and a blue primary, the transmission spectra of which define 10 said viewed color gamut.

16. The method of claim 10 comprising spatially modulating the light of said at least three primary colors.

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